

from the first side wall; and

a first bottom flange integral with the ~~second~~ first side wall, extending laterally inward toward the ~~first~~ second side wall, extending from the front end to the rear end, and vertically spaced from the top section;

a second bottom flange integral with the second side wall, extending laterally inward toward the first side wall, extending from the front end to the rear end, and vertically spaced from the top section;

a top section cantilevered portion integral with the top section, extending laterally outward from the second side wall, and extending from the front end to the rear end;

a seal flange integral with the first side wall including a seal support with a seal support surface, a vertical wall integral with the seal support flange that cooperates with an outboard side of the first side wall to form a seal retainer channel that is outboard of the outboard side of the first side wall, has an open channel top and extends from the front end to the rear end; and

Wherein the top section cantilevered portion of each floor slat is vertically spaced above an adjacent floor slat seal retainer channel.

2.

A reciprocating floor conveyor, as set forth in claim 1, wherein the first side wall is vertical and the second side wall is vertical.

3.

A reciprocating floor conveyor, as set forth in claim 1, including a combination seal and bearing mounted in the seal retainer channel and having an upwardly facing bearing surface engagable with a seal contact surface on an adjacent floor slat cantilevered portion bottom.

4.

1 A reciprocating floor conveyor, as set forth in claim 3, including
2 a projection extending downward from the seal contact surface and from the
3 front end to the rear end and wherein the projection forms a groove in the
4 upwardly facing bearing surface.

5

5.

A reciprocating floor conveyor, as set forth in
claim 4, wherein the projection is received in the groove in the combination
seal and bearing to create a seal.

6.

1 A reciprocating floor conveyor, as set forth in claim 3, wherein the
2 combination seal and bearing is an ultra-high molecular weight plastic.

7.

A reciprocating floor conveyor, as set forth in claim 6, including an anchor that limits movement between the combination seal and bearing and the seal retainer channel.

8.

1 A reciprocating floor conveyor, as set forth in claim 1, wherein the top
2 section includes a first bottom surface between the first side wall and the
3 second side wall that is a central bearing sliding contact surface, a first
4 bottom flange bottom surface that is a first bearing sliding contact surface, a
5 second bottom flange bottom surface that is a second bearing sliding contact
6 surface, and a top section cantilevered portion downwardly facing surface
7 that is a combination seal and bearing sliding contact surface.

9.

1 A reciprocating floor conveyor, as set forth in claim 1, including a
2 plurality of slide bearings each of which has a transverse channel that
3 receives a cross beam, a fore and aft channel with a base that sits on the
4 cross beam between a pair of adjacent guide beams, a right vertical wall and
5 a left vertical wall extending upward from the base, a left wing that extends
6 laterally outward from the left vertical wall and sits on a first guide beam, a
7 right wing that extends laterally outward from the right vertical wall and sits on

8 a second guide beam, and wherein the each of the plurality of side by side
9 parallel floor slats receives the right wing of one of the plurality of slide
10 bearings and the left wing of an adjacent one of the plurality of slide bearings
11 between the first side wall and the second side wall of one of the plurality of
12 side by side parallel floor slats.

10.

1 A reciprocating floor conveyor slide bearing comprising:
2 a horizontal central base including a base front end, a base rear end, a
3 base left side, a base right side, a cross beam engaging bottom surface, a
4 first floor slat top bearing surface, and a second floor slat top bearing surface;
5 a left side wall integral with the base left side and extending upward
6 from the horizontal base and from the base front end to the base rear end;
7 a right side wall integral with the base right side and extending upward
8 from the horizontal base and from the base front end to the base rear end;
9 a left wing integral with a left side top of the left side wall, extending to
10 the left of the left side wall, having a guide beam engaging left wing bottom
11 surface and a left wing top bearing surface;
12 a right wing integral with a right side top of the right side wall,
13 extending to the right of the right side wall, having a guide beam engaging
14 right wing bottom surface and a right wing top bearing surface;
15 a front vertical transverse wall extending downward from the horizontal

16 central base adjacent to the cross beam engaging bottom surface;
17 a rear vertical transverse wall extending downward from the horizontal
18 central base adjacent to the cross beam engaging bottom surface; and
19 wherein the front vertical transverse wall, the rear vertical transverse
20 wall and the cross beam engaging bottom surface form a transverse cross
21 beam receiving channel.

11.

1 A reciprocating floor conveyor slide bearing, as set forth in claim
2 10, including a left side wall upper finger that engages a first guide beam, a
3 right side wall upper finger that engages a second guide beam, and wherein
4 the left side wall upper finger and the right side wall upper finger limit upward
5 movement of the reciprocating floor conveyor slide bearing relative to the first
6 guide beam and the second guide beam.

7

12.

1
2 A reciprocating floor conveyor slide bearing, as set forth in claim
3 11, wherein the left side wall upper finger and the right side wall upper finger
4 both extend from the base front end to the base rear end.

5

13.

1 A reciprocating floor conveyor slide bearing, as set forth in claim
2 10, including a left side wall lower finger with a first floor slat engaging surface
3 a right side wall lower finger with a second floor slat engaging surface.
4

14.

1 A reciprocating floor conveyor slide bearing, as set forth in claim
2 13, wherein the left side wall lower finger and the right side wall lower finger
3 limit upward movement of a first floor slat and a second floor slat.

15.

1 A reciprocating floor conveyor slide bearing, as set forth in claim
2 13 wherein the left side wall lower finger and the right side wall lower finger
3 both extend from the base front end to the base rear end.

16.

1 A reciprocating floor conveyor slide bearing, as set forth in claim
2 10, including a left side wall lower front extension that extends downward

from the horizontal base and from the base front end to the front vertical transverse wall;

a left side wall lower rear extension that extends downward from the horizontal base and from the base rear end to the rear vertical transverse wall;

a right side wall lower front extension that extends downward from the horizontal base and from the base front end to the front vertical transverse wall; and

a right side wall lower rear extension that extends downward from the horizontal base and from the base rear end to the rear vertical transverse wall.

17.

A reciprocating floor conveyor slide bearing, as set forth in claim 15, wherein the reciprocating floor conveyor slide bearing is a one piece molded plastic material.

18.

A reciprocating floor conveyor slide bearing, as set forth in claim 16, wherein the reciprocating floor conveyor is molded from ultra high molecular weight material.